

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Implementation of Section 224 of the Act; A
National Broadband Plan for Our Future

WC Docket No. 07-245
GN Docket No. 09- 51
FCC 10-84

To: The Commission

REPLY COMMENTS OF NEXTG NETWORKS, INC.

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SUMMARY

The Commission has repeatedly affirmed that wireless attachments are entitled to receive equal treatment under section 224 of the Telecommunications Act of 1996. The National Broadband Plan has recommended establishing “the fastest and most extensive wireless networks” in the world. Wireless attachments are critical to the deployment of wireless communications and broadband services throughout the United States, but the expansion of wireless deployment will be crippled unless the Commission takes another affirmative stance that wireless attachments receive equal access and rates as wireline attachments under section 224.

In these reply comments, NextG responds to the utilities’ insistence that wireless attachments should not have equal rights, including make-ready timelines, by demonstrating that the make-ready process does not differ from the typical wireline make-ready process when utility companies cooperate with wireless attachers when necessary from the beginning to develop a wireless attachment standard. NextG demonstrates that the Commission’s proposed timelines for wireline attachments are reasonable and achievable for wireless attachments as well, highlighting its own and others’ examples where it and the pole owner were able to quickly and efficiently deploy wireless networks, exemplifying that there is no reason to treat wireless attachments in a discriminatory manner.

Utilities have attempted to inundate the Commission with “questions” and “concerns” as a strategy for making wireless attachments appear completely novel and extremely complex. NextG confronts the unsupported “concerns” and accusations of those utilities by outlining, step by step and point by point, how wireless attachments are deployed in a way that does not impact the safety or reliability of the utilities or any other attachers. NextG explains that the “questions

and concerns” of some utilities are manufactured to create uncertainty, even though there is a well-established history of utilities and attachers routinely working together under existing regulations, rules, guidelines, and negotiated pole attachment agreements for wired and wireless attachments.

Pole top antennas are an essential part of wireless network designs. NextG demonstrates that it is unreasonable and unlawful for utilities to impose blanket prohibitions on pole top attachments. NextG demonstrates that pole top attachments can be and have been deployed safely on thousands of utility poles, by both third parties *and the utilities themselves*. The objections raised by utilities are meritless. Existing rules, adopted by utility industry groups, already recognize that pole top antenna attachments can be installed safely and consistent with general engineering standards. Pole top attachment may require pole-by-pole evaluation, and NextG describes the manner by which utilities and attachers work together to select the best distribution poles for attachment. Such cooperation, however, does not negate the need for the Commission to clearly establish a rule prohibiting blanket bans on pole top attachments.

NextG also responds to the concerns of attachers and utilities alike that utilities lack the internal resources to perform make-ready in a timely manner, thus illustrating why *qualified, utility approved* contractors are necessary to ensure there are no unreasonable make-ready delays. Utilities may always remove a contractor from their lists of approved contractors should there be noncompliance with safety requirements.

Finally, it is of the utmost importance that wireless attachments be explicitly protected by the Commission’s annual rental rate regulations, at a minimum, no greater than the telecom rate. Commission clarity on this point is critical to stop the unreasonable, unjustified, and intolerable annual rates currently demanded by some utilities, regardless of the location of a wireless

antenna on the pole top or in the communication space. Wireless antennas occupy the “usable” space and should pay only the regulated rate per foot of space exclusively occupied, in accordance with established Commission policy. In order to clarify any future confusion, NextG requests the Commission make this rule explicitly clear under the current docket.

NextG respectfully requests the Commission continue treating wireless attachments in a non-discriminatory and competitively neutral fashion so that it may deploy increased wireless communications and broadband networks in a safe and timely manner at a reasonable cost.

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NextG Networks, Inc., on behalf of its operating subsidiaries NextG Networks of NY, Inc., NextG Networks of California, Inc., NextG Networks Atlantic, Inc., and NextG Networks of Illinois, Inc. (“NextG”), respectfully submits these Reply Comments in response to the Further Notice of Proposed Rulemaking (“FNPRM”) released by the Federal Communications Commission (“Commission”) in the above-captioned proceeding.¹

I. INTRODUCTION

The National Broadband Plan has recommended establishing “the fastest and most extensive wireless networks” in the world.² Yet the National Broadband Plan’s goal is not feasible unless the Commission takes the necessary action to ensure “network providers have easier access to poles, conduits, ducts and rights-of-way.”³

¹ *In the Matter of Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, WC Docket No. 07-245; GN Docket No. 09-51, Order and Further Notice of Proposed Rulemaking , FCC 10-84 (Wireline Bureau, May 20, 2010) (“FNPRM”).

² Omnibus Broadband Initiative, Federal Communications Commission, Connecting America: The National Broadband Plan 109 (2010), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf> (last visited Aug 3, 2010) (“NBP”).

³ *Id.*

Generally speaking, many of the utilities try to convince the Commission that it should slow down and do nothing that will create timely access for wireless networks.⁴ Uneducated questions, concerns, and unsupported speculations are not constructive, nor do they lead to a productive dialogue about how to cooperatively use existing utility infrastructure without impacting safety or reliability.

In these reply comments, NextG demonstrate that these unsupported accusations are without merit and do not justify discriminating between different types of broadband technologies—wireline or wireless. Wireless attachments are not novel. NextG has approximately 5000 wireless attachments safely installed on utility poles in the communications space or on the pole top throughout the nation. Qualified, utility-approved contractors are an essential part of timely and reliable access to utility poles. Wireless attachments should explicitly receive the same rate as wireline telecommunications equipment.

The Commission should fulfill its goals of lowering costs and providing faster access to poles that will ultimately “benefit consumers by removing barriers to telecommunications and cable network deployment, increasing broadband availability, and increasing competition in the provision of broadband, voice, and video services.”⁵ Only equal treatment of wireless

⁴ See, e.g., Comments of the Coalition of Concerned Utilities: Allegheny Power, Baltimore Gas and Electric Co., Dayton Power and Light Co., First Energy Corp., National Grid, NSTAR, PPL Electric Utilities, South Dakota Electric Utilities, Wisconsin Public Service Company, WC Docket No. 07-245; GN Docket No. 09-51, 26 (filed Aug. 16, 2010) (“Coalition of Concerned Utilities”) (suggesting it is too soon to “adopt any of the proposed make-ready deadlines” even though the docket was opened in 2007 and parties have been involved with the make-ready process for many years); Comments of the National Rural Electric Cooperative Association, WC Docket No. 07-245; GN Docket No. 09-51, 14 (filed Aug. 16, 2010) (suggesting that wireless attachments “may endanger lives” and that nothing be adopted until there is more information and practical experience) (“NRECA”).

⁵ *FNPRM* at ¶ 1.

attachments will accomplish this and fulfill the noble aspirations of the National Broadband Plan to give America “the fastest and most extensive wireless networks.”⁶

II. THE PROPOSED MAKE-READY TIMELINES ARE REASONABLE AND SHOULD INCLUDE WIRELESS ATTACHMENTS

The Commission’s proposed rules for access and make-ready timelines are reasonable and should treat wireless attachments equally. When crafting the proposed timelines, the Commission took input from the utilities into consideration and was unpersuaded that the objective timeframes were infeasible.⁷ The Commission should go further now and recognize that the utilities have failed to provide reasonable justifications to withhold these timelines from wireless attachments.

A. The Commission’s Proposed Make-ready Timelines are Reasonable and Based on the Electric Utility Record for Wireline Attachments

When the Commission crafted its proposed make-ready timelines, it carefully considered the record established under the NPRM⁸ by the electric utility companies, including the members of the Coalition of Concerned Utilities (Allegheny Power, Baltimore Gas and Electric Co., Dayton Power and Light Co., First Energy Corp., Kansas City Power and Light, National Grid, NSTAR and PPL), PacifiCorp, Florida Power & Light (“FPL”), and Edison Electric Institute/Utilities Telecom Council (“EEI/UTC”).⁹ The proposed timelines are a compromise of the Commission’s “existing rules, the New York timeline, and the Coalition Proposal.”¹⁰

In its comments the Coalition of Concerned Utilities failed to acknowledge the Commission’s consideration of its concerns even though the Commission cited it fourteen times

⁶ NBP at 109.

⁷ *FNPRM* ¶ 30 n.107.

⁸ *Implementation of Section 224 of the Act; Amendment of the Commission’s Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245; RM-11293; RM-11303, Notice of Proposed Rulemaking, 22 FCC Rcd 20195, 20209, ¶ 34 (2007) (“*NPRM*”).

⁹ *FNPRM* ¶ 30 n.107 & n.109.

¹⁰ *FNPRM* ¶ 32.

and mentioned it repeatedly by name in the make-ready timeline section of the FNPRM.¹¹ Instead, the Coalition of Concerned Utilities recycled its list of reasons why electric utilities should not have to grant access in a timely manner, such as utility work load and schedule.¹² However, the Commission was very clear that it considered their concerns, but that these concerns did not negate that section 224 “imposes a responsibility on utilities to provide just and reasonable access.”¹³

The Coalition of Concerned Utilities’ suggested “changes” to the proposed make-ready rule section 1.1420 crosses it out in near-entirely, which is not constructive.¹⁴ In its place, it suggests so many caveats and loopholes that utilities could conceivably avoid granting access altogether. For example, the recommendation that timelines should not apply to any circumstances where there is a single pole change out is impractical because often pole change outs are needed because a utility has an already weak or overloaded pole.¹⁵ An incoming attacher should not be penalized because of poorly maintained infrastructure. Additionally, excluding all jobs with over 250 poles¹⁶ renders the timelines virtually meaningless because networks of any significant size exceed that amount.

NextG agrees with the Coalition of Concerned Utilities that “[u]tilities cannot be expected to hire expansive full-time staff and leave them idle pending receipt of the attachers’ requests.”¹⁷ This illustrates why attachers should be able to use *qualified, utility approved* contractors during the make-ready process. As discussed in detail below, the Commission

¹¹ FNPRM ¶¶ 30–52.

¹² Coalition of Concerned Utilities at 16–19 (the Commission rejected these arguments in the FNPRM n.107).

¹³ FNPRM ¶ 30.

¹⁴ Coalition of Concerned Utilities at 12–13.

¹⁵ *Id.* at 30.

¹⁶ *Id.* at 33.

¹⁷ *Id.* at 31.

should state that qualified, utility approved contractors are always able to be used when necessary, not just whenever the utilities choose to “entertain attacher proposals regarding the hiring of make-ready contractors.”¹⁸ Attachers need reliable expectations of when their networks will be complete, and leaving make-ready timelines to the discretion of utilities introduces intolerable levels of uncertainty.

Some utilities have mentioned that make-ready timelines are not needed because the complaint process is an adequate remedy.¹⁹ That assertion is patently false. Filing a complaint every time there is an unreasonable make-ready delay is both time and cost prohibitive and would create a significant burden on the Commission. NextG’s customers expect network completion as quickly as possible and need predictable and certain timelines of when NextG will deliver the network before making a decision to invest. This means the make-ready timelines must be reliable and cannot be longer than 120 days for the average network.²⁰ The deployment of broadband services would effectively grind to a halt if attachers had to file a complaint for each make-ready delay. It is better for parties to work together on solutions, but that does not negate that clear make-ready timelines from the Commission are needed so that all parties understand what make-ready timelines are reasonable.

B. Wireless Attachments Should Receive Equal Timelines

NextG has experience with utilities where make-ready for networks composed of wired and wireless attachments was accomplished within the proposed timelines.²¹ This illustrates that when utilities and attachers cooperate, the proposed make-ready timelines are achievable.

¹⁸ Coalition of Concerned Utilities at 33.

¹⁹ *Id.* at 15.

²⁰ Some networks must be completed within 6 months, and for those networks, make-ready timelines cannot exceed 60 days.

²¹ Declaration of Alan T. Young, ¶ 5 (“Young Decl.”) (attached as Exhibit A).

From a practical perspective, make-ready survey, estimate, and performance are the same for wireline and wireless attachments. Utilities typically have standards dictating the placement for both the wired and wireless equipment that is used for reference when performing the make-ready survey in order to determine National Electric Safety Code (“NESC”) compliance. Even where standards for wireless attachments have not been fully developed by the utility, NextG has been able to successfully work with many different utilities to develop standards that were mutually acceptable by referring to generally accepted construction codes and standards.

For example, NextG built a large network in Pennsylvania. NextG and the utility worked together to develop a pole top antenna design standard that accommodated NextG’s equipment prior to submitting site-specific applications. Once NextG submitted its site-specific applications with engineering drawings to the utility, they were referred to the engineering department, who in turn used qualified, utility approved contractors to perform the survey.²² The surveys were conducted by determining what, if any, existing attachments had to be rearranged in order to obtain adequate space for the new attachments.²³ When attaching to the pole top, the surveyor would determine if there was a pole top electric attachment that needed to be rearranged or if the top was clear enough for a pole top extension to be installed without any make-ready.²⁴ Pole top antennas were attached in compliance with the NESC and the utility-specific standard. The antenna was attached at a minimum of forty-inches (40”) above the top supply cable attachment and did not interfere with any operational and maintenance activities, including climbing space or working from an aerial lift vehicle.

²² *Id.* at ¶ 5.

²³ *Id.*

²⁴ *Id.*

Once the survey was complete, the utility forwarded NextG the make-ready estimate for payment in advance of the make-ready construction.²⁵ This entire first part of the process took approximately 45 days to complete.²⁶ Qualified, utility approved contractors were used to complete the make-ready construction, including rearrangement of the pole top for the pole top extension in anticipation of the pole top antenna.²⁷ Through the cooperation and dedication of both parties, including the use of qualified, approved contractors, the make-ready process took approximately 90 days from beginning to end.²⁸ This demonstrates that the make-ready timeline is achievable and should not vary on whether the attachment is wired or wireless, in the communication space or on the pole top.

Some utilities have tried to confuse this issue by pointing to the “different” types of wireless equipment deployed, such as “cabinets, electric distribution panels, work receptacles, electric meters, work lights and wires running the entire length of the pole to connect the cabinet to the antenna.”²⁹ However, with the exception of the antenna itself, the list of equipment is the same for wired utilities, and wired utilities routinely have wires running down the pole for underground dips, also known as risers. In other words, wireless equipment is not substantially different from any other type of equipment, and there is no justification for penalizing wireless technology. Equal make-ready timelines are crucial to promoting competitive parity for both wired and wireless services.³⁰

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ Coalition of Concerned Utilities at 36; *see also* Comments of the American Public Power Association, WC Docket No. 07-245; GN Docket No. 09-51, 25–26 (filed Aug. 16, 2010) (“APPA”).

³⁰ Comments of T-Mobile USA, Inc., WC Docket No. 07-245; GN Docket No. 09-51, 7 (filed Aug. 16, 2010) (“T-Mobile”).

NextG’s experience working with utilities to achieve make-ready performance shorter than the suggested timelines illustrates that these timelines are reasonable for wireless and wired equipment.³¹ Many utilities are very good partners. One group of utilities states that “despite the unique challenges of accommodating pole access requests by wireless service providers, each of the POWER Coalition members has negotiated mutually agreeable rates, terms, and conditions for wireless attachments, including reasonable time frames for completion of survey and make-ready work.”³²

Some wireless attachers are asking for even shorter timelines for wireless attachments. For example, CTIA-The Wireless Association has requested shorter timelines for wireless attachments due to the relatively few poles needed by traditional wireless carriers.³³ Unlike NextG, which is a DAS company with both fiber and wireless attachments, many of the CTIA members need timely access only for a small handful of poles when constructing micro or pico sites. NextG endorses a shorter timeline, but at a minimum they should be equal. MetroPCS notes that “no convincing reason has ever been given for differential treatment [between attachers], and parity between wired and wireless providers is essential to maintaining a level playing field.”³⁴

NextG recognizes that the Commission has the difficult task of establishing reasonable timelines that do not compromise safety while being responsive to need of timely access. However, comments by the electric utilities that only serve as hyperbole and scare tactics are not

³¹ Young Decl. ¶ 5.

³² Comments of Ameren Services Company, Centerpoint Energy, Houston Electric, LLC and Virginia Electric and Power Company, WC Docket No. 07-245; GN Docket No. 09-51, 13 (filed Aug. 16, 2010) (“POWER Coalition”).

³³ Comments of CTIA-The Wireless Association, WC Docket No. 07-245; GN Docket No. 09-51, 6–8 (filed Aug. 16, 2010) (“CTIA”).

³⁴ Comments of MetroPCS Communications, Inc., WC Docket No. 07-245; GN Docket No. 09-51 (filed Aug. 16, 2010) (“MetroPCS”).

constructive.³⁵ Common sense suggestions are much more productive. For example, Qwest Communications International Inc (“Qwest”) suggests the make-ready timeline should be tolled if there is not a current standard or a serious safety issue arises.³⁶ This type of suggestion makes sense regardless of whether an attachment is wired or wireless. It also makes sense in an emergency or force majeure event, such as the hurricanes mentioned by some of the Florida investor-owned utilities.³⁷ NextG expects that utilities will use any ability to suspend make-ready timelines in the event of an emergency wisely and in good faith.

III. WIRELESS ATTACHMENTS ARE ROUTINELY DEPLOYED AND THE “QUESTIONS AND CONCERNS” OF THE COALITION OF CONCERNED UTILITIES ARE NOT ISSUES

The Coalition of Concerned Utilities presented a three-page laundry list of supposed “questions and concerns” about wireless attachments in its original comments under the NPRM.³⁸ NextG responded to the Coalition of Concerned Utilities “concerns” in its reply comments under the NPRM.³⁹ The PCIA/DAS Forum also did a very thorough job explaining the regulations governing wireless attachments and many safety measures in its letter to the

³⁵ See, e.g., Coalition of Concerned Utilities at 26 (suggesting it is too soon to “adopt any of the proposed make-ready deadlines” even though the docket was opened in 2007 and parties have been involved with the make-ready process for many years); NRECA at 14; (suggesting that wireless attachments “may endanger lives” and that nothing be adopted until there is more information and practical experience); Comments of the Edison Electric Institute and the Utilities Telecom Council, WC Docket No. 07-245; GN Docket No. 09-51, 26 (filed Aug. 16, 2010) (“EEI/UTC”) (stating that “engineering studies demonstrate . . . pole top wireless antennas pose a safety hazard,” yet not citing any studies or producing an evidence to support such a claim.)

³⁶ Qwest Communications International Inc., WC Docket No. 07-245; GN Docket No. 09-51, 10 (filed Aug. 16, 2010) (“Qwest”).

³⁷ Florida IOUs at 26; see also POWER Coalition Comments at 8–9.

³⁸ Comments of Coalition of Concerned Utilities, WC Docket No. 07-245, RM-11293, RM-11303, 45–48 (filed Mar. 7, 2008).

³⁹ Reply Comments of NextG Networks, WC Docket No. 07-245, RM-11293, RM-11303, 6–7 (filed Apr. 22, 2008) (“NextG NPRM Reply Comments”).

Commission on April 19, 2010.⁴⁰ Even though the record is established clarifying these issues, the Coalition of Concerned Utilities continues to repeat them, so NextG addresses each of them in complete detail below in order to show point by point that these “questions and concerns” have been well-addressed and are not grounds for the Commission to exercise a “hands off” approach to wireless pole attachment regulation.⁴¹

The Coalition of Concerned Utilities asks: “*Electric Service Reliability.*”⁴² “*Will wireless attachments affect reliability? Will emissions from wireless attachments affect utility communications? What is the potential that wireless equipment will fall on to or otherwise interfere with energized facilities? How will restoration times be affected?*”⁴³

There is no evidence that wireless attachments impact electric reliability, and because wireless equipment is attached in compliance with NESC standards, it is no more likely to become detached than any other attachment.⁴⁴ Radio frequency emissions are extremely unlikely to impact utility communications; however, if the electric utility is using an unlicensed or unauthorized frequency or there is an anomaly, simple steps may be taken to remedy the interference, which is typically outlined in pole attachment agreements.⁴⁵ Restoration times have not been affected by wireless equipment any more than other type of third-party attachments.⁴⁶ Ultimately, this concern over system integrity sounds remarkably similar to the arguments advanced by the Bell Monopoly to thwart competitive deployments.

⁴⁰ See generally Letter from PCIA/The DAS Forum, WC Dkt. 07-245; RM-11293; RM-11303 (filed Apr. 19, 2010).

⁴¹ Coalition of Concerned Utilities at 40–43 (virtually duplicating the list contained in the Letter from the Coalition of Concerned Utilities, WC Dkt. 07-245; RM-11293; RM-11303, 15–17 (filed May 1, 2009)).

⁴² Coalition of Concerned Utilities at 40.

⁴³ Coalition of Concerned Utilities at 40.

⁴⁴ Young Decl. at ¶ 4.

⁴⁵ *Id.* at ¶ 7.

⁴⁶ *Id.* at ¶ 8.

The Coalition of Concerned Utilities asks: “Operational Ramifications. What are the operational ramifications of permitting wireless attachments in the power space? What are the performance standards associated with these attachments? How will wireless attachments affect climbing clearances? How will electric utility activity be limited by such attachments? Will they affect utility maintenance? How much routine wireless maintenance is required? Who performs the wireless maintenance and how will it affect utility operations? What qualified work force is available to the wireless attacher seven days per week, 24 hours per day and 365 days per year (7-24-365) to assure prompt response to maintain these attachments? What response times can the wireless attacher guarantee? What kind of notification is required? What are the additional liability issues? Are there tree trimming requirements to maintain line of sight for the wireless antenna?”⁴⁷

Again, these are questions that have been answered. The NESC has established rules created explicitly so that attachers will not interfere with the operations, maintenance or climbing clearances needed for any other attachers, including pole owners, thus wireless attachments in the power space will not limit the activities of or have any maintenance or operational ramifications on the electric utility.⁴⁸ Each wireless node is inspected annually for preventative maintenance, and the antenna is typically undisturbed.⁴⁹ Only qualified electrical workers perform the installation and maintenance to the antennas at the pole top.⁵⁰ Moreover, all wireless nodes have contact information for NextG’s network operations center (“NOC”) in the event the utility or any other attacher needs to reach NextG. Someone is on duty seven days a week, 24 hours a day, 365 days a year in the NOC to respond to any unscheduled maintenance or

⁴⁷ Coalition of Concerned Utilities at 40.

⁴⁸ Young Decl. at ¶ 4.

⁴⁹ *Id.* at ¶ 10.

⁵⁰ *Id.* at ¶ 13.

emergency event.⁵¹ All notification requirements, liability terms, and tree trimming rules are typically contained in the pole attachment agreement or even local law.

The Coalition of Concerned Utilities asks: “Radio-Frequency (“RF”) Concerns. *How serious are the health effects to utility crews? How dangerous are the antennas that the carrier is proposing to install? Will RF warning signs need to be posted? Are RF detection meters required? Is an on/off switch required? How will the utility’s linemen and attachers’ communications workers be trained? Who will pay for that training? How will contractors and out-of-state workers providing mutual assistance in an emergency or natural disaster be provided training (e.g., during a major storm)?”*⁵²

All wireless antennas must comply with the Commission’s Office of Engineering and Technology Bulletin 65 (“OET Bulletin 65”) entitled "Evaluating Compliance with FCC-Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields.”⁵³ These concerns are adequately addressed through following the guidelines and procedures in OET Bulletin 65.

The Coalition of Concerned Utilities asks: “OSHA Requirements. *What are the OSHA implications of locating wireless transmitters and receivers on utility poles? To what extent is training required for all workers (e.g., ILEC, CLEC, CATV, municipal, electric company) that have the potential to work in close proximity to the installed wireless devices? Will the wireless attacher shoulder responsibility and cost of training all such workers? How does it affect climbing clearances? How much does the fall hazard increase if this additional equipment is located in the power space? Is additional fall protection equipment required? How much does*

⁵¹ *Id.* at ¶ 10.

⁵² Coalition of Concerned Utilities at 40.

⁵³ Young Decl. at ¶ 11.

*the fall hazard increase if this additional equipment is located in the power space? Is additional fall protection equipment required?”*⁵⁴

According to the OSHA website, “There are no specific standards for radiofrequency and microwave radiation issues,” but it provides some general standards.⁵⁵ Wireless antennas must comply with the Commission’s OET Bulletin 65.⁵⁶ As discussed above, wireless attachments are installed in compliance with the NESC and any applicable utility construction standards, either in the communication space or pole top, thus maintaining climbing space requirements and preventing any increase in the fall hazard.⁵⁷ Existing fall hazard equipment and training apply whether or not wireless attachments are on a particular pole.⁵⁸

The Coalition of Concerned Utilities asks: “Worker Qualifications/Utility Oversight.
*Who should perform the work? Who is qualified to perform this work? Is electric utility oversight required? If so, will the utility pole owner incur greater liability for mishaps because of such oversight? Given that wireless providers operate seven days per week, 24 hours per day, 365 days a year (7-24-365), to the extent wireless attachments require electric utility support must electric utility support be available 7-24-365?”*⁵⁹

Only qualified workers should ever perform work on a utility pole, and the NESC and OSHA outline worker qualifications.⁶⁰ Some pole attachment agreements require attachers provide notice to the utility company prior to any work performance, regardless of whether the

⁵⁴ Coalition of Concerned Utilities at 41.

⁵⁵ Occupational Safety & Health Administration, *Radiofrequency and Microwave Radiation Standards*, <http://www.osha.gov/SLTC/radiofrequencyradiation/standards.html#display> (last visited Sept. 14, 2010).

⁵⁶ Young Decl. at ¶ 11.

⁵⁷ *Id.* at ¶ 12.

⁵⁸ *Id.*

⁵⁹ Coalition of Concerned Utilities at 41.

⁶⁰ Young Decl. at ¶ 13.

work is wired or wireless, and the attacher is obligated to pay for the supervision. Liability issues are fact specific, and it is not appropriate or productive to engage in hypothetical scenarios. Electric utilities also operate seven days a week, 24 hours a day, 365 days a year, and emergency situations are coordinated pursuant to standard practices between the entities.

The Coalition of Concerned Utilities asks: “Utility Liability. What is the potential liability to electric utilities in allowing non-utility access to and use of electric utility space for RF purposes? To what extent may utilities be held responsible for damages related to access and use of pole top antennas?”⁶¹

Liability issues are fact specific, and it is not appropriate or productive to engage in hypothetical scenarios.

The Coalition of Concerned Utilities asks: “Emergency Restorations. In addition to RF and OSHA training, what other training is required to restore wireless attachments during emergencies? How would emergency restorations be handled? Who performs the work? Are those people qualified? What kind of notification is required? What additional liability issues may be created? What training is required to ensure non-interference with other wireless facilities?”⁶²

Only qualified workers may perform work on a utility pole, and these workers should have all required training pursuant to NESC and OSHA qualifications.⁶³ Emergency restoration is typically coordinated by the electric utility.⁶⁴ Pole attachment agreements typically specify notice requirements in emergency situations, and all of NextG’s equipment is labeled so that

⁶¹ Coalition of Concerned Utilities at 41.

⁶² Coalition of Concerned Utilities at 41.

⁶³ Young Decl. at ¶ 13.

⁶⁴ *Id.* at ¶ 8.

workers on scene may contact NextG in an emergency. Liability issues are fact specific, and it is not appropriate or productive to engage in hypothetical scenarios.

The Coalition of Concerned Utilities asks: “Capacity Concerns. From an engineering standpoint, is there sufficient room at the top of the utility’s poles to accommodate wireless attachments especially since some utilities have installed energized lines spanning the tops of their poles? To what extent will utility uses of the poles be blocked if wireless attachments are permitted?”⁶⁵

The capacity of any given pole to accommodate any given attachment is not an issue for the Commission to consider when adopting timeline and terms and conditions rules of general applicability. When a utility company has an energized distribution line at the top of the pole, NextG may request that the utility company relocate the attachment to a different configuration. Some utility companies have agreed to the relocation.⁶⁶ Because utilities may always deny access for the reasons listed in Section 224(f)(2), it is presumed that a permitted attachment, either wired or wireless, is not limiting a utility’s use of the pole.

The Coalition of Concerned Utilities asks: “Wind and Ice Loading. What are the wind and ice loading considerations with respect to the proposed wireless attachments? Will stronger or taller poles be required?”⁶⁷

Proper structural analysis must be performed for all installations, wired or wireless, in order to insure the pole meets wind, ice, and structural loading standards, and if a stronger or

⁶⁵ Coalition of Concerned Utilities at 42.

⁶⁶ Young Decl. at ¶¶ 5 & 14 .

⁶⁷ Coalition of Concerned Utilities at 42.

taller pole is required, the attacher typically works with the utility on cost-sharing for the new pole, but often is forced pay the entire cost in order to obtain access.⁶⁸

The Coalition of Concerned Utilities asks: “Interference Issues. Equipment will need to be tested to ensure that it does not interfere with SCADA, voice and other utility radio communications.”⁶⁹

Many pole attachment agreements have a general prohibition regarding interference with any utility or third-party attacher equipment and operations, whether related to radio communications or otherwise. If a utility would like to analyze the radio frequency of a DAS antenna prior installation, non-interference can be verified in advance.⁷⁰ Ultimately, this is an issue within the Commission’s jurisdiction and covered by its rules already.

The Coalition of Concerned Utilities asks: “Prototype. In order to help determine whether wireless attachments can be safely deployed in the utility’s electric space, the utility may need to construct a prototype distribution pole and analyze different wireless antennas on top. Who pays for the development and testing of such a pole?”⁷¹

NextG has invested great time, money and resources to provide utilities with prototypes of wireless attachments, including constructing mock-ups in the utilities’ pole yards.⁷² Most recently, in preparation for a large network in the Orlando metro area involving multiple utilities and jurisdictions, NextG constructed three versions of wireless attachments so that they could be viewed by any interested parties, a photo of which is included as part of the Declaration of Alan

⁶⁸ Young Decl. at ¶ 15.

⁶⁹ Coalition of Concerned Utilities at 42.

⁷⁰ Young Decl. at ¶ 7.

⁷¹ Coalition of Concerned Utilities at 42.

⁷² Young Decl. at ¶ 4.

T. Young, attached as Exhibit A.⁷³ Also, NextG complies with provisions in pole attachment agreements outlining a pre-construction, prototype process. The FPL process is discussed in the comments of the Florida IOUs.⁷⁴ NextG is currently working with FPL.⁷⁵

“Easements/Rights-of-Way/Local Municipal Approval.”⁷⁶ “To what extent has the entity seeking to install wireless attachments obtained permission from land owners and appropriate authorities to attach its wireless antennas and other facilities to the utility’s facilities? Do wireless facilities conform to local zoning ordinances, private easements and other requirements?”⁷⁷

Pole attachment agreements typically require that attachers obtain all third-party approvals necessary before the installation on the utility pole. Utilities typically have the right to request evidence of the approvals, which attachers must provide upon request. The types of approvals needed vary widely between jurisdictions.

The Coalition of Concerned Utilities mentions cost recovery in its concerns.⁷⁸ Yet, make-ready charges and regulated rates under the Commission’s rules already fully compensate utilities for their costs. For example, NextG pays utilities hundreds of thousands of dollars each year for make-ready and various other charges in addition to the annual fees. There is no evidence that utilities are not fully recovering their costs.

Finally, the Coalition of Concerned Utilities states, “Even if all other questions can be answered to the satisfaction of an individual electric utility, certain poles should not have wireless antenna attachments, such as junction poles, poles with multiple primary voltage

⁷³ *Id.* at Exhibit A.1.

⁷⁴ Florida IOUs at Exhibit C ¶ 7.

⁷⁵ Young Decl. at ¶ 4.

⁷⁶ Coalition of Concerned Utilities at 42.

⁷⁷ *Id.* at 42.

⁷⁸ *Id.* at 42–43.

circuits, poles with switches, regulators, transformers, reclosers, etc.”⁷⁹ NextG acknowledges that utilities always have the right to deny access to a specific pole for “safety, reliability and generally applicable engineering concerns.”⁸⁰ NextG’s concern is that utilities have abused and will continue to abuse this right by making blanket prohibitions on wireless attachments, particularly located at the pole top, which is discussed in more detail below. The Commission should reject the attempt by the Coalition of Concerned Utilities, and others, to use fear tactics to justify widespread denial of wireless pole attachments, or to give the utilities leverage to demand grossly unreasonable, monopoly windfall rental payments.

IV. THE COMMISSION SHOULD PROHIBIT UTILITIES FROM MAKING BLANKET PROHIBITIONS AGAINST ACCESS FOR WIRELESS ATTACHMENTS AT THE POLE TOP

As demonstrated above, NextG takes the time and resources to respond to any questions and concerns from the utilities regarding its wireless attachments. Nonetheless, NextG sees in the comments of pole owners and in its day-to-day dealings with them an all-too-frequent desire to impose blanket prohibitions against antenna attachment at the pole top. There is no engineering, safety, or policy reason to support such a denial of access. As NextG and others have demonstrated, pole top attachment can be and is accomplished safely already—by third party attachers *and the utilities themselves*. The Commission should adopt a rule clearly articulating that pole owners cannot impose blanket prohibitions on antenna attachment to the top of poles.

Clearly, wireless attachments are safe and can be accomplished without impacting the safety or reliability of electrical distribution. Indeed several of the companies commenting have allowed hundreds of wireless attachments on the pole top over primary and secondary

⁷⁹ Coalition of Concerned Utilities at 43.

⁸⁰ 47 U.S.C. § 224(f)(2).

distribution poles. NextG is extremely concerned that if the Commission does not explicitly state that wireless attachments can access the usable space at the pole top, then historic partners in the deployment of DAS networks on utility poles will withdraw this vital solution to the demand for increased wireless voice and broadband networks.

NextG appreciates that Oncor Electric Delivery Company LLC's ("Oncor") shows an example of a pole top DAS antenna installed safely over the power space and mentions that it has "specific standards and specifications for wireless attachments," by which to judge make-ready requirements.⁸¹ Oncor goes on to mention its successful collaboration with NextG to find a solution for NextG's DAS antennas at the pole top.⁸² Utilities like Oncor show that pole top antenna installations may be achieved when both parties work together.

A utility always retains the ability to deny "access to its poles, ducts, conduits, or rights-of-way, on a non-discriminatory basis where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes."⁸³ However, blanket prohibitions against pole top antennas are an unreasonable and unjustified denial because pole top antennas must comply with all NESC and internal utility attachment standards just like any other type of cable or telecommunications equipment attachment. In addition, as CTIA-The Wireless Association pointed out, "If anything, wireless pole-top attachments are more flexible than wireline attachments because wireless attachers do not need to attach to every pole."⁸⁴

When selecting primary distribution poles for pole top antenna attachment, NextG avoids cluttered or complicated poles, such as those listed by the Coalition of Concerned Utilities and

⁸¹ Oncor Electric Delivery Company LLC's Initial Comments, WC Docket No. 07-245; GN Docket No. 09-51, 35 (filed Aug. 16, 2010) ("Oncor").

⁸² *Id.* at 37-38.

⁸³ 47 U.S.C. § 224(f)(2).

⁸⁴ CTIA at 7.

the Vermont Department of Public Service.⁸⁵ Clean poles are the best candidates for pole top attachment, but as always, utilities still have the right to reject any pole for the reasons listed in section 224(f)(2). NextG requests only that the Commission speak clearly that blanket prohibitions for pole top attachments are prohibited.

Blanket prohibitions of pole top antennas are an effective reservation of space, in violation of the Commission Wireless Telecommunications Bureau's Public Notice released in 2004 stating "the only recognized limits to access for antenna placement by wireless telecommunications carriers are those contained in the statute: 'where there is insufficient capacity, or for reasons of safety, reliability, and generally applicable engineering purposes.' 47 U.S.C. § 224(f)(2)."⁸⁶ AT&T made this point as well in its comments.⁸⁷

The Commission should not be persuaded by vague and unsupported assertions that antennas may "fall" off of the pole top.⁸⁸ The NESC governs the attachment of all equipment and wires on utility poles. Antennas are no more likely to fall off a pole than any other type of equipment, including the electric lines themselves—or the many antennas that utilities themselves have installed at the pole top. NextG request the Commission instruct the utilities to follow section 224(f)(2) and act in good faith when evaluating requests to attach antennas at the pole top.

⁸⁵ Coalition of Concerned Utilities at 43; Vermont Department of Public Service, Guidelines for Broadband Service Provider Antenna Systems Mounted on Distribution Poles, 3–4; *see also*, Vermont Telecommunications Authority, Vermont Standard Pole-Top Attachments (Apr. 21, 2010), available at: <http://www.telecomvt.org/documents/Pole-Top-Attach.pdf> (providing a statewide standard for pole top antenna attachments) (last visited Sept. 21, 2010)

⁸⁶ *See generally* 1998 Implementation Order; Gulf Power; Wireless Telecommunications Bureau Reminds Utility Pole Owners of Their Obligations to Provide Wireless Telecommunications Providers with Access to Utility Poles at Reasonable Rates, Public Notice, 19 FCC Rcd. 24930 (Wireless Telecom. Bureau 2004) ("2004 Wireless Reminder").

⁸⁷ Comments of AT&T Inc., WC Docket No. 07-245; GN Docket No. 09-51, 32 (filed Aug. 16, 2010)

⁸⁸ Coalition of Concerned Utilities at 38.

V. QUALIFIED, UTILITY-APPROVED CONTRACTORS SHOULD BE ABLE TO BE USED IN ALL CIRCUMSTANCES

NextG joins other parties in support of the Commission’s proposal to allow attachers to use authorized, utility approved contractors to perform make-ready surveys and work. This approach, as CTIA explained, “serves as a common-sense compromise that addresses attachers’ need to access poles quickly, and also alleviates electric utilities’ safety and engineering concerns.”⁸⁹ The utilities often do not have the resources to ramp up for network construction under timelines applicable to DAS network deployments, so consequently the use of contractors that are already approved and qualified is essential to attachers being able to construct their networks in a timely manner.⁹⁰ The Coalition of Concerned Utilities stated that “[u]tilities cannot be expected to hire expansive full-time staff and leave them idle pending receipt of the attachers’ requests.”⁹¹ This illustrates why attachers should be able to use qualified, utility approved contractors during the make-ready process.

Commenting attachers seek the adoption of rules in this regard that apply uniformly to all utilities. The adoption of a more restrictive standard for the selection and use of third-party contractors on electrical utilities’ poles does not make sense. As noted by TW Telecom and COMPTTEL, the FCC appears to believe that because electrical utilities lack the incentive to discriminate against other telecom carriers, it is reasonable to limit attachers’ right to use third-party contractors when attaching to non-incumbent LEC poles.⁹² However, the evidence on the record indicates that electric utilities are less cooperative than the incumbent LECs in

⁸⁹ CTIA at 9.

⁹⁰ See, e.g., Comments of Sunesys, LLC, WC Docket No. 07-245; GN Docket No. 09-51, 17–18 (filed Aug. 16, 2010) (“Sunesys”).

⁹¹ Coalition of Concerned Utilities at 31.

⁹² Comments of TW Telecom and COMPTTEL, LLC, WC Docket No. 07-245; GN Docket No. 09-51, 14 (filed Aug. 16, 2010).

accommodating third-party attachers.⁹³ The Commission should likewise be suspicious of statements by the incumbent LECs that the requirement to allow the use of approved contractors should not apply to them. Instead, the Commission should adopt clear rules that require all utilities to make publicly available a list of contractors used by the utility to work on its poles and the qualifications that are used by the utilities to ascertain qualified contractors.

Multiple parties propose that the Commission adopt rules that requires utilities to publish a list of all contractors and allow attachers to use (a) any of the contractors that the utility uses to work on its own poles, or (b) any other contractor that meets the utilities' stated qualifications (which qualifications cannot exceed those of the utility's own workers in terms of training and must be applied in a nondiscriminatory fashion).⁹⁴ NextG concurs with this proposal as a way of ensuring attachers can obtain work with the utility in a streamlined fashion to assure make-ready work is conducted in a timely manner.

NextG shares the utilities' concerns that some contractors do not adhere to well-known required NESC and OSHA safety practices. The Florida IOUs have provided examples of bad actors where the electric utility had to intervene because of unsafe activities.⁹⁵ While NextG believes that all parties have an obligation to police activities that violate safety requirements, such actions by a few bad apples are not a basis for inconsistent standards applicable to electric utilities. If a contractor has not followed the applicable safety practices, then the utility should remove them from the list of qualified, utility approved contractors, which will inform all attachers to refrain from using particular contractors.

⁹³ *Id.*

⁹⁴ Sunesys at 17.

⁹⁵ Florida IOUs at 31.

VI. THE COMMISSION SHOULD AFFIRM THAT WIRELESS ATTACHMENTS ARE SUBJECT TO NO GREATER THAN THE REGULATED TELECOM RATE

Multiple wireless carriers highlighted in their comments that it is imperative for the Commission to reconfirm its previous determination that wireless attachments are subject to the Commission's rules limiting the maximum pole attachment rental rate, at a minimum, to the Commission's telecom rate.⁹⁶ Still others encouraged the Commission to adopt a lower tier telecommunications rate that approximates the cable rate.⁹⁷ NextG believes that the Commission has already found that wireless attachments are subject to the Commission's rules regulating rental rates when it affirmed that wireless attachments receive equal treatment under section 224.⁹⁸ However, continued resistance to this established fact results in repeated disputes with utility companies because they charge as much as 120 times the regulated rate for one wireless antenna.⁹⁹ When an antenna occupies more than one foot of space, then the rate should be the multiple of the per foot regulated rate, but in no event should utilities be allowed to charge unjustified and unreasonable annual rates merely because a piece of telecommunications equipment emits radio frequency. Yet, that is precisely what they do.

In non-FCC states, utilities charge thousands of dollars for a single wireless antenna attachment. It is not uncommon for NextG to spend months and even years trying to obtain a reasonable rate for a wireless attachment while a utility insists it can charge whatever the

⁹⁶ See, e.g., CTIA; MetroPCS.

⁹⁷ See T-Mobile at 16; CTIA at 16.

⁹⁸ *Implementation of Section 703(e) of the Telecommunications Act of 1996; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, CS Dkt. No. 97-151, Report and Order, FCC 98-20, 13 FCC Rcd 6777 (Feb. 6, 1998) ("1998 Implementation Order"), *aff'd*, *Nat'l Cable Telecommunications Ass'n v. Gulf Power Co.*, 534 U.S. 327 (2002) ("Gulf Power").

⁹⁹ Comments of ExteNet Systems, Inc., WC Docket No. 07-245, RM-11293, RM-11303, 4 (filed Mar. 7, 2008) ("ExteNet NPRM Comments") (providing an example of a Florida IOU that charged \$12.94 for a wireline attachment, but \$1,564.50 for a wireless attachment).

“market” will bear, typically somewhere ranging from \$1,200 to as high as \$6,000 annually on a distribution pole regardless of location on the pole.

NextG further supports the development of a uniform rate that incorporates more efficient marginal costs principles that will facilitate the expansion of wireless voice and broadband services. The Commission has already found that pole attachment rates should be as low as possible to facilitate the expansion of broadband.¹⁰⁰ The reduction of the telecom rate and explicit statement that wireless attachments can be charged no higher than the regulated the telecom rate would both spur investment and accelerate wireless and wireline broadband deployment. Moreover, the Commission’s proposals are adequate to ensure that pole owners receive fair, cost-based compensation.¹⁰¹

The Commission has “affirm[ed] the right of wireless telecommunications carriers to attach pursuant to section 224, and their right to attachment of fiber or other wired facilities is the same as other telecommunications carriers.”¹⁰² It is critically important that Commission be explicitly clear in this rule making docket that wireless attachments receive equal rates in addition to equal access.

VII. CONCLUSION

Based on the foregoing, NextG respectfully requests the Commission to affirm the importance of wireless broadband infrastructure by ordering equal treatment of wireless attachments regarding rates, make-ready timelines, and access to poles, including the pole top.

¹⁰⁰ See *FNPRM* at ¶ 115.

¹⁰¹ The Supreme Court held that the current cable rate is fully compensatory to pole owners. See *CTIA* at 16 (citing *FCC v. Florida Power Corp.*, 480 U.S. 245 (1987)); and see *T-Mobile* at 16 (citing *FCC v. Florida Power*, 480 U.S. 245 (1987); *Alabama Power v. FCC*, 311 F.3d 1357 (11th Cir. 2002) *cert. denied*, 540 U.S. 937 (2003); *Implementation of Section 703(e) of the Telecommunications Act of 1996, Amendment of Commission's Rules and Policies Governing Pole Attachments*, 16 FCC Rcd 12103 (2001)).

¹⁰² *FNPRM* at n.153.

Without such protections, wireless attachments will suffer continued discriminatory treatment by utilities, which will hinder the expansion of broadband services to the public contrary to the goals of the President and the Commission.

[Signature on the following page]

Respectfully submitted,



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Counsel for NextG Networks, Inc.

October 4, 2010

Exhibit A

Declaration of Alan T. Young

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Implementation of Section 224 of the Act; A
National Broadband Plan for Our Future

WC Docket No. 07–245
GN Docket No. 09– 51
FCC 10–84

DECLARATION OF ALAN T. YOUNG

1. My name is Alan T. Young. I am an outside plant telecommunication engineer with over thirty (30) years of experience working in pole attachment construction for pole owners and telecommunications companies. I am currently the National Compliance Manager for NextG Networks, Inc (“NextG”). I am a voting member of the National Electric Safety Code (“NESC”) publication and currently serve on Subcommittee 4, Overhead Lines and Clearances. I am also a voting member of California’s General Order 95 (“GO95”) Rules Committee.

2. NextG is the largest owner and operator of distributed antenna systems (“DAS”) with its principal offices in Milpitas, California. NextG has operating authority in thirty-four (34) states and over 5000 wireless node attachments and approximately 70,000 fiber attachments throughout the United States. NextG has negotiated approximately 125 pole attachment agreements for both fiber and wireless attachments. NextG has successfully constructed DAS networks in the service territory of many utilities, including NSTAR, National Grid, Baltimore Gas and Electric (BG&E), and Oncor, and is currently building or have networks planned in the service territories of many utilities, including Progress Energy, Florida Power & Light (FPL) and Allegheny Power.

3. My declaration focuses on the access issues raised in the Commission's Further Notice of Proposed Rulemaking ("FNPRM") in the above-referenced docket and is organized by each access issue. I offer this testimony in support of the reply comments filed by NextG.

4. In my capacity as National Compliance Manager, I have worked with multiple utilities on the design configuration and compliance with the NESC, utility, and any other applicable federal, state or local requirements for wireless attachments. I have constructed prototypes of these configurations in order to demonstrate compliance with applicable construction codes for the utilities. At great cost and expenditure of resources, NextG supplies and installs all the necessary equipment either on its own mock-up poles or those located in a pole yard of the utility. These prototypes are completed in advance of submission of specific pole applications. In preparation for a large network in the Orlando metro area involving multiple utilities and jurisdictions, NextG established a set of prototype installations at its office so that all interested parties, including four utilities, could view the prototypes. A picture of these prototypes is attached as Exhibit A.1. NextG has worked with Florida IOUs on introducing wireless equipment before applications are submitted. When FPL requested to see the exact antenna NextG plans to use in its service territory, we complied. Outside of Florida, other mock-ups have been constructed for various utilities, including at BG&E's training facility in Baltimore, Maryland and at a Public Service Electric and Gas's (PSE&G) facility in Moorestown, New Jersey.

5. Make-ready Procedures: NextG has been able to work with utilities to streamline the make-ready process in order to accommodate wireless attachments. For example, NextG worked with a large electric utility in Pennsylvania to complete make-ready for both wireline and wireless attachments, including pole top antenna installations, within the timelines being

proposed by the Commission. NextG made applications to attach to the poles, which they forwarded to their engineering contractor who completed a field survey to determine the make-ready work required for a pole top antenna attachment, its associated equipment, and the fiber attachments in compliance with internal utility standards and the NESC. The estimated costs were then forwarded to NextG for payment. These first two steps were usually completed within forty-five (45) days or less. Once NextG made the payment, the Pennsylvania electric company gave NextG permission to move forward with the make-ready work using a utility-approved electrical contractor to perform the make-ready work, install the pole top antenna, associated cables and connect power to NextG's node equipment. All of this was done under the supervision of a utility employee to assure the work was completed to the utility's specifications. This portion of the process was completed within the timeframe necessary to meet NextG's customer's deployment timeline. Overall, the entire process was finished within ninety days because the parties work together, and a photo of an existing pole top antenna is attached as Exhibit A.2.

6. Electric Reliability: Wireless attachments have no impact on reliability. NextG has installed many antennas above power without incident of disrupting power or increasing the fall hazard.

7. Interference: There is no interference with an electric company's internal radio communications because FCC licensed spectrum is designed to prevent such interference. If there is interference because the utility is using unlicensed spectrum or an anomaly occurs, such as intermodulation, simple steps can be taken to remedy the interference. Utilities may not broadcast over spectrum licensed to the wireless carriers. Frequencies can be verified in advance

or during the application process with equipment specifications, and such verification is required by many utilities.

8. Emergency Restoration: Wireless equipment will not affect power company restoration since the equipment can be turned down and moved out of the way. The first priority is for the electric utility to make sure the area is safe and then restore power to their customers. Only after power is restored does NextG use qualified contractors to restore its equipment. Since NextG's nodes do not work without power, it's a logical sequence to have them go in first to restore power and correct safety hazards first.

9. Operations: Pole top antennas are attached in compliance with the NESC and any additional utility-specific standards. The antenna is attached at a minimum of 40" above the top supply cable attachment and does not interfere with any operational and maintenance activities, including climbing space or working from an aerial lift vehicle. Cables connected to the antenna are usually small coaxial cables and are placed in compliance with NESC and utility-specifications to allow for required climbing space clearances.

10. Monitoring & Maintenance: NextG visits each node at least once a year for annual preventative maintenance. The antenna stays undisturbed unless there is a problem. All inspections are from the ground and the communications space on the pole, and NextG does not access the antenna in the power space unless a swap out or adjustment is necessary. If the antenna is above the supply space, all antenna maintenance is performed by a qualified electrical worker. NextG's network operation center (NOC) is manned 24/7/365, and a local qualified contractor is available for maintenance and emergency response.

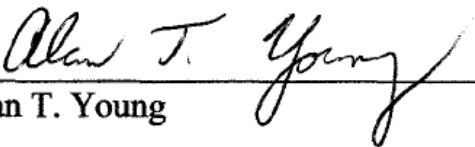
11. Radio Frequency: All antennas must comply with the Commission's Office of Engineering and Technology Bulletin 65 (OET Bulletin 65) entitled "Evaluating Compliance with FCC-Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields."
12. Occupational Safety and Health Administration ("OSHA") Requirements: OET Bulletin 65 specifies the permissible limits regarding RF exposure, rather than OSHA. The only wireless equipment in the power space would be the antenna and its associated cable. All other equipment is installed below communication space. Any existing fall hazard equipment and training applies equally regardless of whether equipment attachments are wireline or wireless in nature.
13. Worker Qualifications: NESC and OSHA rules require that only qualified electrical workers can work in the supply space. Electric utilities typically allow NextG to use its own utility approved qualified electrical workers to perform installation and maintenance above the power space for pole top antennas; however, some only allow their own employees. Qualified communication workers perform all work in the communication space, but do not work in the power space.
14. Capacity Concerns: It is not uncommon for a utility to agree to rearrange its pole top power attachment in order to accommodate a pole top extension or pole replacement for a pole top wireless antenna. NextG bears the cost of these rearrangements and pole replacements for the pole owner and all existing attachers.
15. Wind and Ice Loading: Pole loading needs to be performed prior to installation to verify the structure has the ability to accommodate additional equipment. A stronger pole may be required to accommodate the additional attachments. Replacement costs are make-ready costs to

new attacher, but NextG tries to negotiate some type of cost sharing if the pole was overloaded prior to NextG's attachment.

16. Other Installed Equipment: NextG looks for clean poles when selecting locations for wireless attachments. It avoids poles with complicated power attachments or a large number of other communication attachers. Typically, there is not enough room on those poles to collocate and still provide code required clearances and climbing space. Replacing poles to increase capacity is time consuming and costly, thus it is only considered as a last resort.

17. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the facts set forth in this declaration are true to the best of my knowledge.

Executed this 4 day of OCTOBER, 2010.



Alan T. Young

Exhibit A.1
Wireless Attachment Prototypes: Orlando Network



Exhibit A.2
Pole Top Antenna: Pennsylvania Network

